



Origins

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Caribou was founded by scientists from the University of California, Berkeley to drive the commercialization of applications based on the remarkable nucleic acid modification capabilities found in prokaryotic CRISPR systems. In 2007, Rodolphe Barrangou, now Chairman of the Board of Directors of Caribou Biosciences, led the group that characterized CRISPR systems as a form of prokaryotic adaptive immunity that provides a critical line of defense against invading phages, plasmids, and environmental nucleic acids. CRISPR systems have evolved to enable prokaryotes to acquire DNA from their environment and incorporate it into their genomes within specialized arrays of repetitive DNA. These CRISPR sequences act as a form of genomic memory that can be accessed to defend the cell when it is invaded by plasmids or phages that contain the recorded sequences.

These genetic arrays are accompanied by CRISPR-associated (Cas) proteins, enzymes that include over 70 families of proteins with the ability to manipulate RNA and DNA in specific ways. Of these proteins, Cas9 stands out as the poster

child for the robust capabilities that have evolved within CRISPR system. Research carried out at UC Berkeley in the lab of Caribou co-founder Jennifer Doudna demonstrated that Cas9 can be programmed to bind and cleave virtually any DNA sequence. Ongoing work at founders' laboratories and at Caribou continues to explore the basic mechanisms of CRISPR, which may allow us to create future innovations based on this remarkable system. At the core of Caribou's extensive CRISPR technology IP portfolio is an exclusive license to the foundational CRISPR-Cas9 work from the University of California and the University of Vienna.

The scientific work carried out by Jennifer Doudna was recently recognized by the award of a Breakthrough Prize in Life Sciences. Additionally, Dr. Doudna's work on CRISPR-Cas systems has been recognized with the Paul Janssen Award for Biomedical Research, the Lurie Prize in Biomedical Sciences and the Princess of Asturias award (Spain). In 2015, Dr. Doudna was named as one of TIME Magazine's TIME 100 list of most influential people in the world. Also in 2015, Caribou co-founder Martin Jinek was named a Vallee Young Investigator.

APPLICATION AREAS

The Caribou CRISPR-Cas technology platform has the potential to revolutionize the future of therapeutics, agriculture, biological research, and industrial biotechnology. [Learn more.](#)

(<http://www.example.com/application-areas>)

CRISPR-CAS TECHNOLOGY

The Caribou CRISPR-Cas technology platform enables simple, flexible targeting of any site in a genome. [Learn more.](#) (<http://www.example.com/technology>)

ABOUT US

Pioneering the translation of CRISPR-Cas genome engineering into new medical therapies and

bio-based products. [Learn more. \(http://www.example.com/about-us\)](http://www.example.com/about-us)

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